

SEQUENCE LISTING

<110> LIVSHITS, Vitaliy Arkadyevich
DOROSHENKO, Vera Georgievna
GORSHKOVA, Nataliya Vasilyevna
BELARYEVA, Alla Valentinovna
KHOURGES, Evgeni Moiseevich
AKHVERDIAN, Valery Zavenovich
GUSYATINER, Mikhail Markovich
KOZLOV, Yury Ivanovich

<120> Mutant ilvH gene and Method for producing L-valine

<130> OP969

<141> 2000- -

<150> RU-2000101678

<151> 2000-01-26

<160> 8

<170> PatentIn Ver. 2.0

<210> 1

<211> 492

<212> DNA

<213> Escherichia coli

<220>

<221> CDS

<222> (1)..(489)

<400> 1

atg cgc cgg ata tta tca gtc tta ctc gaa aat gaa tca ggc gcg tta 48
Met Arg Arg Ile Leu Ser Val Leu Leu Glu Asn Glu Ser Gly Ala Leu

1

5

10

15

tcc cgc gtg att ggc ctt ttt tcc cag cgt ggc tac aac att gaa agc		96	
Ser Arg Val Ile Gly Leu Phe Ser Gln Arg Gly Tyr Asn Ile Glu Ser			
20	25	30	
ctg acc gtt gcg cca acc gac gat ccg aca tta tcg cgt atg acc atc		144	
Leu Thr Val Ala Pro Thr Asp Asp Pro Thr Leu Ser Arg Met Thr Ile			
35	40	45	
cag acc gtg ggc gat gaa aaa gta ctt gag cag atc gaa aag caa tta		192	
Gln Thr Val Gly Asp Glu Lys Val Leu Glu Gln Ile Glu Lys Gln Leu			
50	55	60	
cac aaa ctg gtc gat gtc ttg cgc gtg agt gag ttg ggg cag ggc gcg		240	
His Lys Leu Val Asp Val Leu Arg Val Ser Glu Leu Gly Gln Gly Ala			
65	70	75	80
cat gtt gag cgg gaa atc atg ctg gtg aaa att cag gcc agc ggt tac		288	
His Val Glu Arg Glu Ile Met Leu Val Lys Ile Gln Ala Ser Gly Tyr			
85	90	95	
ggg cgt gac gaa gtg aaa cgt aat acg gaa ata ttc cgt ggg caa att		336	
Gly Arg Asp Glu Val Lys Arg Asn Thr Glu Ile Phe Arg Gly Gln Ile			
100	105	110	
atc gat gtc aca ccc tcg ctt tat acc gtt caa tta gca ggc acc agc		384	
Ile Asp Val Thr Pro Ser Leu Tyr Thr Val Gln Leu Ala Gly Thr Ser			
115	120	125	
ggt aag ctt agt gca ttt tta gca tcg att cgc gat gtg gcg aaa att		432	
Gly Lys Leu Ser Ala Phe Leu Ala Ser Ile Arg Asp Val Ala Lys Ile			
130	135	140	
gtg gag gtt gct cgc tct ggt gtg gtc gga ctt tcg cgc ggc gat aaa		480	
Val Glu Val Ala Arg Ser Gly Val Val Gly Leu Ser Arg Gly Asp Lys			
145	150	155	160
ata atg cgt tga		492	
Ile Met Arg			
<210> 2			
<211> 163			
<212> PRT			

<213> Escherichia coli

<400> 2

Met	Arg	Arg	Ile	Leu	Ser	Val	Leu	Leu	Glu	Asn	Glu	Ser	Gly	Ala	Leu
1															

Ser	Arg	Val	Ile	Gly	Leu	Phe	Ser	Gln	Arg	Gly	Tyr	Asn	Ile	Glu	Ser
20							25						30		

Leu	Thr	Val	Ala	Pro	Thr	Asp	Asp	Pro	Thr	Leu	Ser	Arg	Met	Thr	Ile
35						40						45			

Gln	Thr	Val	Gly	Asp	Glu	Lys	Val	Leu	Glu	Gln	Ile	Glu	Lys	Gln	Leu
50					55					60					

His	Lys	Leu	Val	Asp	Val	Leu	Arg	Val	Ser	Glu	Leu	Gly	Gln	Gly	Ala
65					70					75			80		

His	Val	Glu	Arg	Glu	Ile	Met	Leu	Val	Lys	Ile	Gln	Ala	Ser	Gly	Tyr
85						90						95			

Gly	Arg	Asp	Glu	Val	Lys	Arg	Asn	Thr	Glu	Ile	Phe	Arg	Gly	Gln	Ile
100						105						110			

Ile	Asp	Val	Thr	Pro	Ser	Leu	Tyr	Thr	Val	Gln	Leu	Ala	Gly	Thr	Ser
115						120						125			

Gly	Lys	Leu	Ser	Ala	Phe	Leu	Ala	Ser	Ile	Arg	Asp	Val	Ala	Lys	Ile
130						135						140			

Val	Glu	Val	Ala	Arg	Ser	Gly	Val	Val	Gly	Leu	Ser	Arg	Gly	Asp	Lys
145							150			155			160		

Ile Met Arg

<210> 3

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for PCR

<400> 3

gacatgaatg tctggttt

18

<210> 4

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for PCR

<400> 4

tcaacgcatt attttatcg

19

<210> 5

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for PCR

<400> 5

taaacgcgtt atcccgctg attg

24

<210> 6

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for PCR

<400> 6

gccacgcgtc tgattcattt tcga

24

<210> 7

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for PCR

<400> 7

ctcgaggcct ttttccag cgtgg

25

<210> 8

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer for PCR

<400> 8

ctcgaggcct atcacgcgga aataacg

27